

Remarks

Claims 1-3, 6-7, 11-13 and 16-17 remain pending in this application after entry of this paper. The invention is believed to be patentable.

Claims 1-2 and 11-12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Baker et al. (U.S. Patent No. 6,092,044) in view of Beutnagel (U.S. Patent No. 6,078,885), and further in view of Junqua (U.S. Patent No. 6,598,018). Claims 3 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Baker et al. in view of Beutnagel, further in view of Junqua, and yet further in view of Franceschi (U.S. Patent No. 6,321,196). Claims 6-7 and 16-17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Baker et al. in view of Beutnagel, further in view of Junqua, and yet further in view of Surace et al. (U.S. Patent No. 6,144,938).

Claim 1 recites a method of training a computer system via human voice input from a human teacher. The computer system has a text to speech engine and a speech recognition engine. The computer system presents a text spelling of an unknown word and requests to receive the human voice pronunciation of the unknown word using speech output. The request from the computer system takes a form of an ongoing natural language dialog between the computer system and the human teacher.

The computer system has a list of ways to ask questions with a variable for the questionable data. The computer system then receives a human voice pronunciation of the unknown word from the human teacher. A phonetic spelling of the unknown word is determined with the speech recognition engine based on the human voice pronunciation of the unknown word. The text spelling is associated with the phonetic spelling to allow the text to speech engine to correctly pronounce the unknown word in the future when presented with the text spelling of the unknown word.

Regarding claims 1-2 and 11-12, in the final action, the Examiner acknowledges that Baker in view of Beutnagel does not specifically suggest the claimed ongoing natural language dialog between the computer system and the human teacher with the computer system having a list of ways to ask questions with a variable for the questionable data. In making the rejection, the Examiner relies on Junqua as an additional secondary reference.

Applicant believes that there is no motivation to combine these references to achieve the claimed invention. The invention relates to a method of training a computer system via human voice input from a human teacher, with the computer system including a speech recognition engine. Junqua does relate to an apparatus and method for using natural dialog to control operation of an automobile system, such as a navigation system, but Junqua is not in the field of Applicant's invention which relates to methods of training a computer system. Although Junqua may relate to using natural dialog to control operations of an automobile system, this technical area does not relate to training a computer system with a speech recognition engine.

Further, Junqua would not logically have commended itself to an inventor's attention when considering the problem faced by Applicant. Applicant faced the problem of training a large concatenated voice system. The traditional use of manual data entry to train large concatenated voice systems has some shortcomings. Applicant was faced with the problem of developing a method of training a computer system that overcomes the shortcomings of traditional manual data entry methods. Junqua does not address the problem with training, and thus, in addition to Junqua being in a different field than the invention, Junqua does not address the problem addressed by Applicant. Put another way, Junqua is non-analogous art and there is no motivation to use Junqua in combination with the other cited references to achieve the claimed invention.

After all, although Junqua does relate to a method for natural dialog interface car devices, there is no suggestion of using the particular claimed features relating to natural language dialog for training a computer.

In addition to Junqua being non-analogous art, Junqua appears to also be deficient and not overcome the deficiencies of the other relied upon references. After all, claim 1 specifically recites a combination including using ongoing natural language dialog between the computer system and the human teacher with the computer system having a list of ways to ask questions with a variable for the questionable data. The Examiner makes reference to Column 3, lines 31-41; Column 4, lines 46-67; and Column 5, lines 49-57. At Column 3, Junqua does mention a sentence to synthesize including a fixed part and variable slots. Note however that a fixed part and variable slots would not result in the claimed ongoing natural language dialog. After all, the claim recites that a computer system has a list of ways to ask questions with a variable for the questionable data to achieve the ongoing natural language dialog between the computer system and the human teacher. Using a fixed part and variable slots as in Junqua does not result in an ongoing natural language dialog as the fixed part is just that — fixed — as opposed to the claimed list of ways to ask questions with a variable for the questionable data.

At Column 4, Junqua describes asking the user to provide information, but this does not suggest the specifically claimed approach of Applicant's invention. Still further, at Column 5, Junqua does describe managing the turn-taking aspect of human-like back-and-forth dialog. Nevertheless, suggesting the turn-taking aspects of human-like back-and-forth dialog still does not suggest the particularly claimed approach using an ongoing natural language dialog between the computer system and the human teacher with the computer system having a list of ways to ask questions with a variable for the questionable data.

Thus, overall, Junqua is believed to be deficient and the proposed combination still fails to describe the claimed invention. In addition, Junqua is believed to be non-analogous art which is another reason that there is no motivation to combine the references to achieve the claimed invention.


For the reasons given above, independent claims 1 and 11 are believed to be patentable. The remaining claims are dependent claims and are also believed to be patentable.

Further, in the final action, the Examiner asserts that Surace is analogous art. Applicant maintains the position that Surace is non-analogous art. After all, Surace is in a different field and relates to voice user interfaces with personality as opposed to the field of the invention which is methods of training a computer system via human voice input from a human teacher. As well, Surace describes voice user interfaces having personality, but does not logically commend itself to an inventor's attention in considering the problem addressed by Applicant, namely, training a large concatenated voice system.

For the reasons given above, all claims are believed to be in condition for allowance and such action is respectfully requested.

Respectfully submitted,

ELIOT M. CASE

By 
Jeremy J. Curcuri
Reg. No. 42,454
Attorney for Applicant

Date: September 15, 2005

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351